EFFECT OF ANTICOAGULANT DRUGS IN REDUCING THE RISK OF MORTALITY IN COVID-19 PATIENTS: A META-ANALYSIS

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ABSTRACT

Background: COVID-19 is widely continue to spread worldwide. Deaths among people with COVID-19 have been partially attributed to venous thromboembolism and arterial thromboses. Several expert organizations have recommended prophylactic anticoagulation for patients admitted with covid-19, who do not have a contraindication to this treatment, to reduce the risk of thromboembolism. However, results from different studies comparing the effect of anticoagulation on the mortality of COVID-19 patients with non-anticoagulation are inconclusive. A systematic review and meta-analysis was conducted to assess the effect of anticoagulant drugs in reducing the risk of mortality in COVID-19 patients.

Subjects and Method: A systematic review was conducted using the Pub-Med, Science direct, Scopus databases, published from 2020 to 2021. Eligibility criteria were defined using the PICO model as follows, (1) population: COVID-19 patients, (2) intervention: coagulant drugs, (3) comparison: non-coagulant drugs, and (4) outcome: mortality. The following search terms were used: "anticoagulant" AND "mortality" AND "COVID-19". The inclusion criteria were English full-text, cohort retrospective study, and reported adjusted Odds Ratio (aOR). Data analyses were performed using REVMAN 5.3.

Results: Six studies were selected from Kuwait, German, Italy, China, and Spain. This study showed that coagulant drugs reduced the risk of mortality in COVID-19 patients, but it was statistically non-significant (OR= 0.51; 95% CI= 0.39 to 0.66; p= 0.160).

Conclusion: Coagulant drugs reduces the risk of mortality in COVID-19 patients.

Keywords: Anticoagulant, mortality, COVID-19

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